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IMPLEMENTATION OF SIX-YEAR PLAN AND DEVELOPMENTAL TRENDS IN
COMMUNICATIONS IN FIVE-YEAR PLAN IN POLAND

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Engineer Alfred Osmycki

The basic condition for properly carrying out the Five-Year Plan for communications is a detailed knowledge of the existing status of all means of communication, of the production level of communication services, of relationships between the individual branches of communications, and of the overall requirements of the community for services. Moreover, the complete framework of those postulates should be defined at the end of the Six-Year Plan.

The implementation of the Six-Year Plan with respect to the development of means of communication in intercity telephony is expressed in percent as follows:

Total number of positions (switchboard drops) in the intercity exchanges	124
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Length of intercity cable trunk lines	102
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Length of intercity overhead lines	123
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Local telephony

Capacity of local telephone exchanges	101
Capacity of automatic exchanges	85
Capacity of manual exchanges	144
Length of telephone trunk lines in the local network	81
Length of overhead lines of the local network	70
Total number of telephone subscribers	108
Total number of gromadas with available telephone services	93

Radiofication of Poland

Total number of radio stations	100
Total number of radio transmitting and receiving units	105
Total number of radio subscribers with tube receivers	120
Total number of subscribers to a speaker system	98
Length of radio rebroadcasting lines	64
Total number of gromadas with available radio rebroadcasting facilities	65

Television

Total number of television centers	100
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Radio communications

Total number of radio stations	100
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Telegraph

Total of teletype equipment in the telegraph network	58
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Postal Communications

Total number of post offices	115
Volume of the communications buildings	63
Total number of mechanized postal rolling stock (electric carts, etc)	48

Transportation of Communications

Total number of units of automotive rolling stock	50
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An analysis of the implementation of the Six-Year Plan indicates that the planned tasks have been either completely fulfilled or over-fulfilled with respect to intercity telephony, radio broadcasting, radio communications, and television. The planned tasks in local telephony with respect to the extension of service facilities to new telephone subscribers have been executed, although the plan for expanding the local cable trunk lines and overhead lines has not been fulfilled and only partially fulfilled in bringing telephone service to the gromadas.

The 101% implementation of the plan for expanding the facilities of the local telephone exchanges simultaneously with the 81% implementation of the plan for cable trunk line construction, and 70% implementation of construction of the overhead lines indicates that the 108 percent execution of the planned extension of telephone service to new subscribers has taken place only thanks to a more intensive utilization of the local emergency reserves of the cable trunk lines.

The 85% implementation of the construction plan for local automatic exchanges has been due to:

(a) inadequate expansion of the building facilities and cable trunk network owing to limited investment allocations and the inadequate production of local cable trunks as well as to

(b) a reduction of the expected quantity of automatic exchanges supplied by the industry in 1953, caused by operational absorption of a considerable number of repaired automatic exchanges which in fact adversely affected production of new automatic exchanges.

In view of the nonfulfillment of the plan for expanding the automatic exchanges (85% of implementation) the need arose for expanding the manually operated exchanges in order to execute the plan for extending telephone services to new subscribers and for the maximum satisfaction of community needs in that respect. Full realization of these tasks was possible because the additional construction of manually operated exchanges of the same capacity has been substituted for the number of automatized exchanges produced under the Six-Year Plan.

In radio broadcasting some 98% of the plan has been attained for linking the subscribers to the speaker system despite the failure to complete the expanding of radiofication lines (64% of implementation) which, however, precipitated failure of the fulfillment of the plan for radiofication of gromadas (65% of implementation).

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however, represent only small shortcomings.

It should be underlined that the services output plan has been exceeded despite nonfulfillment of the plan in certain branches of communications.

Disproportions and Negative Aspects of the Six-Year Plan

In accepting the ratios established by the Six-Year Plan as the basis for comparison, the following disproportions appearing at the end of the Six-Year Plan should be acknowledged.

(1) Disproportion between intercity and local means of communication which has manifested itself by the insufficient number of intercity trunks in proportion to the overall capacity of the telephone exchanges.

(2) Disproportion between the high-level automatization of the city telephone exchange and the low-level automatization of the rural exchanges.

(3) Disproportion between the capacity of local telephone exchanges and the capacity of local cable trunk lines which acutely evidenced itself in certain poorly developed cable trunk lines with relatively small emergency reserve cable lines.

(4) Disproportion between the development of all means of communication and the expansion of the telegraphic communications caused by poor development of the telegraphic network.

(5) Disproportion between a relatively rapid development of the radio broadcasting system and a poor development of radio communications facilities.

The negative aspects of the Six-Year Plan are:

(a) Poor quality in services, mainly insufficient quality in the transmission of telephone calls and radio programs a relatively long waiting period for getting telephone connections; not sufficiently rapid transmission of telegrams, parcels, and letters; and detrimental practices in their delivery to the recipients.

(b) Limitations in the process of connecting new links for new telephone subscribers, and delays in extending telephone services to the subscribers in private apartments through certain trunk lines. These are caused by insufficiently rapid expansion of telephone exchanges and local cable trunk lines.

(c) Failure to introduce in the Six-Year Plan automatization of intercity and district telephone traffic as well as telegraphic traffic.

(d) Insufficient utilization of multiplex telephony in intercity circuits.

(e) Slow development of the district network and its trunk line construction.

(f) Slow development of television under the Six-Year Plan.

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(g) Insufficient development of the teletechnical industry with respect to the ranges of appliances, particularly concerning multiplex telephony equipment and, in part, insufficient caliber of the equipment produced.

(h) Insufficient operational utilization of emergency reserves for communication, particularly inadequate technical and operational utilization of the telecommunication equipment.

(i) Weak development of communications transport facilities and of postal and telecommunications construction projects.

(j) Insufficient application of mechanization techniques in telecommunications operations and in postal activities.

The Five-Year Plan for Communications

The Five-Year Plan (1956-1960) for communications is based on the following precepts:

(1) The basic economic law of socialism: "assurance of the maximum satisfaction of the constantly growing material and cultural needs of the entire society during the uninterrupted development and improvement of socialist production at the highest levels of technical development."

(2) On the law of the planned, proportioned development of the national economy, subordinated to the basic economic law of socialism.

These laws define basic postulates concerning the maximum satisfaction of the material and cultural needs of the entire society with respect to communications services and the establishment of proper ratios in the communications industry, in the course of an uninterrupted growth and perfecting of the services, to attain the highest level in telecommunications and postal techniques.

Main Tasks of Communications under the Five-Year Plan

The main task of communications under the Five-Year Plan is "maximum satisfaction of the needs of the entire society with respect to communications services and raising the efficiency and increasing the quality of those services to the public." In 1960 the requirement of the entire community for communications facilities will increase by 47% in comparison with the corresponding 1955 levels.

The volume of production in the communications services should be well above the level of community requirements since it must also take into consideration the services involved in the gross volume outputs of the communications services. In connection with that, communications services will go up by 60% in 1960 while industrial production will go up by 50% in comparison with the corresponding 1955 goals. Of this amount telecommunications services alone will increase as follows:

local telephone calls (by individual telephone subscribers)	by 54%
intercity telephone calls	by 54%
telegrams	by 23%

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(g) Insufficient development of the teletechnical industry with respect to the ranges of appliances, particularly concerning multiplex telephony equipment and, in part, insufficient caliber of the equipment produced.

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Postal Services Will Increase

letters
parcel post

by 67%
by 21%

Radio Broadcasting Services Will Increase

radio broadcasting emission

by 80%

Radio Communications Services Will Increase

Services of the radio rebroadcasting network will increase:

Speaker subscription

by 69%

In a consideration of the service needs and tasks in production growth of the services in the Five-Year Plan the following postulates of the Five-Year communication plan require detailed examination.

Main Postulates of the Five-Year Communication Plan

The postulates of the Five-Year Plan for the communications are as follows.

- (1) Further growth in volume and improvement in the quality of communications services.
- (2) Further improvement in the efficiency and betterment of services rendered to the population.
- (3) Introduction of new telecommunications and postal services.
- (4) Guarantee of an expanded program for installing telephones in private apartments for new subscribers mainly in the Warsaw area.
- (5) Further continuation of expanded construction and modernization of the means of communication to attain planned production tasks and begin elimination of existing disproportions.
- (6) Continued introduction of modern technology and, closely tied with it, application of new means of communications in the operation and perfection of currently used equipment.
- (7) Maximum exploitation of emergency communications reserves, particularly of communication equipment with respect to technical and operational aspects.
- (8) Attainment of a further growth in work productivity consistent with the achievements of modern technology, and a more rational organization of work as well as the achievement of a further reduction in intrinsic operational costs.
- (9) Relating the growth in the construction of communications facilities to the expansion of domestic production in the key and auxiliary communications industries with respect to output volume and the range of production.
- (10) Raising the efficiency of the operational services through continuous perfection of the organizational structure of competent administrations of communications particularly with respect to the management in the Voivodship Communications Administrations.

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The number of telephone subscribers under the Five-Year Plan will be increased by 50% in 1956 over the subscriber status in 1955.

With respect to further expansion and modernization of the means of communications the following developmental trends are foreseen.

(1) The Five-Year Plan establishes as the crux of the plan: a development of local and district telephony to facilitate extensive installation of telephone service apparatus to private subscribers throughout the land with particular emphasis on satisfying the needs of the Warsaw population.

There is to be a continued pressure for automatization of the local telephone exchanges. But to equalize disproportions a greater weight is to be given to the development of automatic exchanges in the rural areas.

In connection with that trend, under the Five-Year Plan, the capacity of the local telephone exchanges will almost double in comparison with the corresponding status of exchanges in the first 5 years of the Six-Year Plan.

A wide operational use of local automatic exchanges -- the core of technical progress in communication -- will help achieve a numerical decrease in and a more limited use of the operationally uneconomical and technically obsolete manual exchange. The total number of exchanges provided for in the plan can be brought into operation only if sufficiently adequate expansion of the local telephone cable trunk lines is insured. But allocations for this expansion are limited and dependent upon the volume of national production. In connection with that it should be noted that due to providing for a certain fixed number of automatic exchanges, the number of the manual exchanges will be limited to the degree to which expansion of the local cable trunk lines is limited. And, since the Five-Year Plan provided for large numbers of automatic exchanges the number of planned manual exchanges remained relatively small.

At the same time the plan provides for eliminating existing disproportions between the capacity of the local exchanges and the capacity of the local cable trunk network.

(2) The Five-Year Plan provides for a continuous rate in the development of intercity communications as a key element in the communications economy facilitating intercity and international telephone calls.

It should be emphasized at this point that since the telephone is presently the economically most important means of telecommunications, the Five-Year Plan places main emphasis on the development of the local telephone network with the largest possible number of subscribers, as well as on the development of the intercity cable trunk lines, which would enable placing intercity calls originating from the private telephones of those subscribers. To raise the efficiency of the intercity telephone traffic the plan envisions semiautomatization of that traffic and introduction of automatization of the intercity connections on certain designated circuits. Semiautomatization of intercity traffic will lead to an enhanced telephone traffic, stemming from an observation that the subscribers are usually willing to wait for the connection only as long as it is needed to process the call. In providing necessary connections only one telephone operator of the intercity exchange which originally accepted the call will participate. The stepped-up intercity traffic

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will continue to be facilitated manually in those circuits where an adequate number of intercity links will be put into operation.

The intercity exchanges will be expanded until disproportions between the number of intercity apparatus trunks and the capacity of local exchanges is completely eliminated.

To guarantee an adequate number of links for semiautomatic and partially automatized traffic long-distance cable trunk lines in symmetrical arrangement for multiplex telephony as well as co-axial cables for radio network lines will be constructed. At the same time the cable trunk lines currently used will be utilized in a wide application of multiplex telephony; this together with the newly constructed lines will assure bringing enough telephone links into operation.

The facilities of multiplex telephony will also be utilized in district cable trunk lines as well as in the local network.

(3) With respect to the telegraph, the Five-Year Plan provides for automatizing telegraph traffic and for a considerable development of teletype facilities in the telegraphic network. At the same time the plan provides for introducing phototelegraph -- a process based on the transmission and reception of images, drawings, photographs, handwriting, etc by photo-telegraphic transmitting and receiving apparatus.

(4) With respect to the radiofication of Poland the plan provides for a considerable increase in the number of radio subscribers with tube receiving sets and speaker service subscribers, and assures the development of high-powered radio stations as well as radio broadcasting and receiving units in the rebroadcasting network.

In radio communications the plan guarantees the proper growth of power and the number of radio-telegraph and radio-telephone transmitting-receiving stations to meet the needs of navigation and fishing. This will permit an increase in the number of radiotelegraphic and radiotelephonic circuits connected with other countries and will assure the maintenance of communications with units of the sea navigation and fishing fleet.

In television the plan provides for an intensification of the development of television through the construction of television centers in Warsaw, L. iz, Stalinogrod, and Cracow; this will allow some 40% of the population to use television network facilities.

(5) In postal communications, the Five-Year Plan envisions introducing air transportation to meet the needs of postal communications. Moreover, postal-air lines will be introduced to cover the Warsaw-Gdansk-Gdynia-Poznan-Warsaw route with utilization of air-planes in night flights while the individual powiats of the Bialystok, Lublin, and Rzeszow voivodships will be serviced by helicopters. To service localities adjacent to Warsaw bus type delivery cars will be brought in and postal electric carts will be used to distribute important mail and parcel post packages to the population.

(6) The plan also foresees wide mechanization of telecommunication work and mechanization of routine postal activities.

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